

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch
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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-017104**Date Inspected:** 02-Sep-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1900**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** N/A**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** OBG COMPONENT**Summary of Items Observed:**

On this date Caltrans OSM Quality Assurance (QA) Inspector, Subhasis Bera was present during the times noted above for observations relative to the work being performed.

Ultrasonic Testing (UT) for Segment 11DE

This QA Inspector performed Ultrasonic testing (UT) 10% of the area previously tested and accepted by ZPMC Quality control personnel. This QA inspector generated a (UT) report for this date. The members are identified as segment 11DE weld joints.

The welds designation reviewed are as follows:

SEG072*-003,033

SEG072A-003,004,006,007,033,039

SEG072B-002,003,033,025,053

SSD17-PP105-010,013,215,088,004

SSD18-PP106-011,014,091,184

During the Quality Assurance Ultrasonic Testing (UT) review of welds located on Orthotropic Box Girder (OBG) segment 11DE, this Quality Assurance Inspector (QA) discovered the following issues that Three(3) longitudinal linear class "A" rejectable indications measuring approximately 15mm~25mm in length. The welds are identified as SEG072A-008, SEG072B-055 and EP160-001-028. Material thickness for joints SEG072A-008 is 16mm.

WELDING INSPECTION REPORT

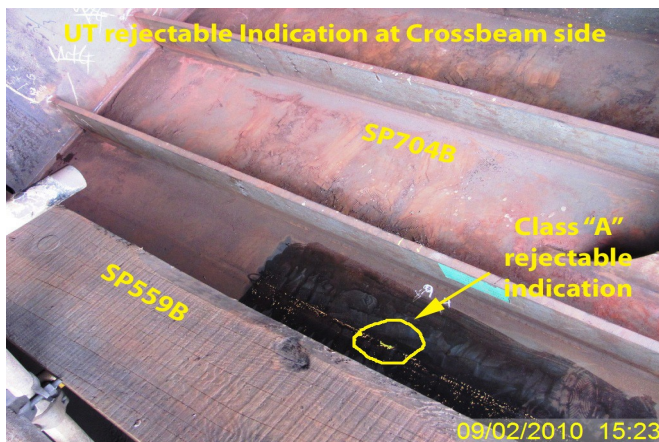
(Continued Page 2 of 3)

Material thickness for joint SEG072B-055 is 18mm. Material thickness for joint EP160-001-028 is 12mm. The indication db's rating for joint SEG072A-008 is a +4. The indication db's rating for joint SEG072B-055 is +9 and for joint EP160-001-028 is +3. The depth of the indications are approximately 9mm~15mm. Welds SEG072A-008 are joining Side Plate to Side plate and EP160-001-028 is at PP106, joining Edge Plate stiffener to corner assembly Diaphragm. Weld SEG072B-055 is at panel point PP105 joining Floor beam FB24A to Longitudinal diaphragm stiffener. Weld SEG072A-008 are Complete Joint Penetration (CJP) butt joints. Weld SEG072B-055 and EP160-001-028 are Complete Joint Penetration (CJP) "T" joint. The Y distance for joint SEG072A-008 is 1370mm from panel point PP106. The Y distance for joint SEG072B-055 is 10mm from cope hole. The Y distance for joint EP160-001-028 is 35mm from cope hole. These welds are Seismic Performance Critical Members (SPCM). The indications are clearly marked on or near the weld. Segment 11DE is located at back side of Bay#14. The Notice of Witness Inspection (NWIT) No. is 006556. The indications all joints are located within an area previously tested and accepted by ZPMC Quality Control (QC) personnel but one joint SEG072A-002 ZPMC tested from other side of the weld joint.

Visual Inspection after Blast at 11AW

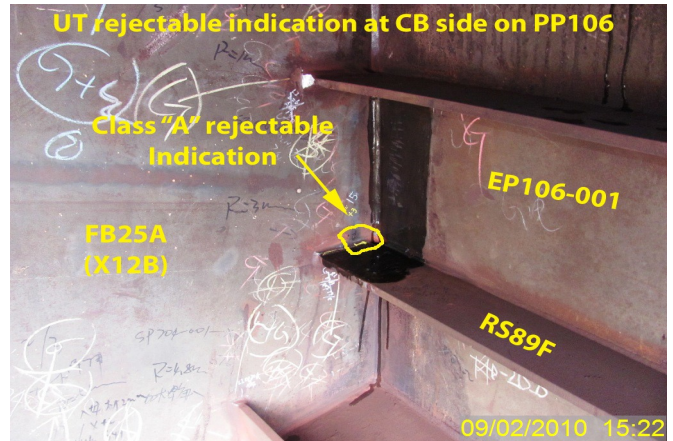
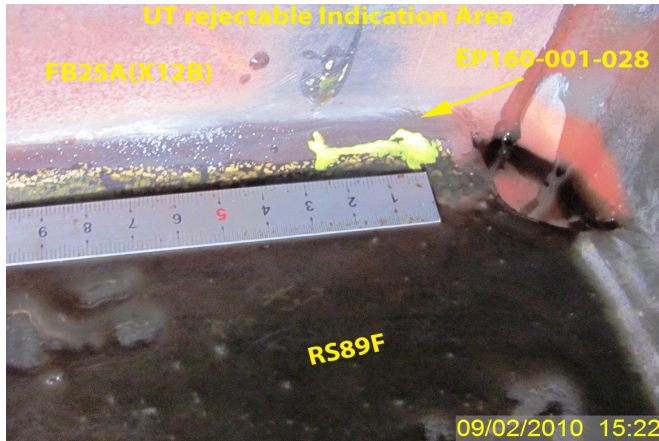
This Quality Assurance (QA) Inspector performed random visual inspection of OBG segment 11AW internal side panel edge panel, floor beam and deck panel surfaces after grit blasting in between panel point PP97 to PP97.5. Areas that marked for repair were recorded for future repair. Areas requiring additional grinding were marked by QA and repaired by ZPMC personnel.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.



WELDING INSPECTION REPORT

(Continued Page 3 of 3)



Summary of Conversations:

No relevant conversations

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang 150-0042-2372, who represents the Office of Structural Materials for your project.

Inspected By:	Bera,Subhasis	Quality Assurance Inspector
Reviewed By:	Patterson,Rodney	QA Reviewer
